NVLAP LAB CODE: [ ]

ADDENDUM TO NIST HANDBOOK 150-11

REQUIREMENTS CHECKLIST FOR CISPR 22 AND CISPR 22-BASED TEST METHODS

The following requirements for accreditation to CISPR 22 and CISPR 22-based test methods are in addition to those given in NIST Handbook 150 and NIST Handbook 150-11. These requirements will be used as a checklist by NVLAP assessors during on-site visits when assessing a laboratory for new or renewed accreditation to CISPR 22 and related test methods. In this checklist, "CISPR 22" will be used to refer to each and all of the test methods for which accreditation is sought. Descriptions, comments, and documentation may be added on separate sheets of paper.

1 Laboratory Audit

_____ 1.1 Accreditation for testing to CISPR 22 is an addition to NVLAP accreditation for radiated and conducted emissions per FCC Part 15. The laboratory is in compliance with NVLAP requirements as stated in NIST Handbook 150 and NIST Handbook 150-11.

_____ 1.2 Copies of CISPR Publication 22, CISPR Publication 16, and other referenced documents are available in the laboratory to test personnel assigned to CISPR 22 testing. Copies of applicable laws and regulations are available in the laboratory.

_____ 1.3 Indicate the test methods for which accreditation is sought. Each specific test method will be listed on the Scope of Accreditation.

_____CISPR 22 (1993)
_____CISPR 22 (1993) Amendment 1 (1995)
_____CISPR 22 (1993) Amendment 2 (1996)
_____AS/NZ-3548 (Australia and New Zealand)
_____CNS 13438 (Chinese Taipei)
_____Others - be specific _____

_____ 1.4 Reference to CISPR 22 has been added in appropriate places in quality system documentation including: list of services in quality manual, procedures document, training documents, etc.

_____ 1.5 Each test procedure has been appropriately studied and evaluated by laboratory personnel assigned to integrate CISPR 22 into the service provided by the laboratory.

_____ 1.6 Test procedures have been written specifically for conduct of CISPR 22 testing including details for amendments and national variations.

_____ 1.7 Measurement uncertainties have been evaluated and calculated and a laboratory policy has been written concerning assignment of "pass" and "fail" verdicts.

_____ 1.8 Instructions have been written for CISPR 22-specific test requirements.

_____ 1.9 Data sheets and report forms have been created.

_____ 1.10 Model test report(s) has been written for use in reporting CISPR 22 test results. This report meets the requirements, as appropriate, per CISPR 22, NIST Handbook 150, NIST Handbook 150-11, regulatory bodies and the laboratory client(s).

_____ 1.11 When using CISPR 22 to meet FCC requirements:

Part 15 of the FCC Rules permit a manufacturer to use either the limits in Part 15 or the limits in CISPR Publication 22 to show compliance with Part 15, subject to the following conditions:

(a) The test procedure shall follow ANSI C63.4;

(b) U.S. voltages must be used during line conducted tests;

(c) For digital devices having oscillators above 108 MHz, they must be tested and comply with FCC limits above 1 GHz.

_____ 1.12 When using CISPR 22 to meet requirements of regulatory bodies other than the FCC, the requirements of that regulatory body are met.

2 Laboratory test procedures, instructions, test reports, and training also address the following:

_____ 2.1 Deviations from the standard test method.

_____ 2.2 Conducted and Radiated limits to which the EUT has been tested.

_____ 2.3 Antenna-to-EUT distance if tested at other than the reference distance. A description of the normalization to the specified distance for determining compliance with the limit(s).

_____ 2.4 Antennas, if other than balanced dipole.

_____ 2.5 Detector used. If appropriate, statements of the form, "reference detector was CISPR quasi-peak, but data was compared with the average limit," are used with appropriate explanations.

_____ 2.6 Open-area test site(s) and alternative test site(s).

_____ 2.7 Compliance of receiver(s) with CISPR 16 for bandwidth and detector function. A preselector is used.

_____ 2.8 LISN(s) or other impedance stabilization network appropriate for use with CISPR 22 is available, has been characterized, and is documented. Cables, sockets and insertion loss have been properly dealt with.

_____ 2.9 Availability, procedures, and instructions are properly documented for use of average, quasi-peak, and peak detectors.

_____ 2.10 Staff members have been assigned to testing to CISPR 22, and they have been given appropriate training; records of training and competence have been placed in staff files.

_____ 2.11 EUT configuration.

_____ 2.12 Emission maximization.

_____ 2.13 Groundplane, equipment setup, and recording of measurements for radiated and conducted measurements, including tabletop and floor-standing EUTs.

3 Please provide the following to NVLAP. The first two items will be used during the on-site assessment and returned to the laboratory or placed in the NVLAP archives. The list of Approved Signatories becomes a part of the NVLAP record and must be updated by the laboratory in accordance with NIST Handbook 150, Section 285.32 (a) (11).

_____ 3.1 A model test report (the product tested does not need to be identified).

_____ 3.2 A list of test equipment used for CISPR 22 testing.

_____ 3.3 A list of Approved Signatories for CISPR 22 test reports and for Part 15 test reports.

References:

In addition to the individual test methods and regulations noted above, the following publication was used in preparing this checklist: "ANSI C63.4 and CISPR 22--Harmony at Last?" written by Donald N. Heirman, published in the record of the 1997 IEEE International Symposium on Electromagnetic Compatibility.